PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT3796940

| SUBMISSION TYPE: | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|--------------------|----------------|
| HIROO TAKAHASHI | 03/14/2016 |
| HIDEYUKI MATSUMOTO | 03/09/2016 |
| TATSUYA SUGIOKA | 03/14/2016 |
| HIROAKI HAYASHI | 03/14/2016 |

RECEIVING PARTY DATA

| Name: | SONY CORPORATION |
|-----------------|------------------------|
| Street Address: | 1-7-1 KONAN, MINATO-KU |
| City: | TOKYO |
| State/Country: | JAPAN |
| Postal Code: | 108-0075 |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 15059915 |

CORRESPONDENCE DATA

Fax Number: (414)277-0656

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 414-271-6560

Email: DCipdocket@michaelbest.com

Correspondent Name: MICHAEL BEST & FRIEDRICH LLP (DC)

Address Line 1: 100 E WISCONSIN AVENUE

Address Line 2: **SUITE 3300**

Address Line 4: MILWAUKEE, WISCONSIN 53202

| NAME OF SUBMITTER: CHRISTOPHER M. TOBIN /Christopher M. Tobin/ DATE SIGNED: 03/23/2016 This document serves as an Oath/Declaration (37 CER 1 63) | ATTORNEY DOCKET NUMBER: | 880001-6105-US00 |
|---|-------------------------|--|
| DATE SIGNED: 03/23/2016 | NAME OF SUBMITTER: | CHRISTOPHER M. TOBIN |
| | SIGNATURE: | /Christopher M. Tobin/ |
| This document serves as an Oath/Declaration (37 CFR 1 63) | DATE SIGNED: | 03/23/2016 |
| This document serves as an Oath/Declaration (37 Of 11 1.00). | | This document serves as an Oath/Declaration (37 CFR 1.63). |

Total Attachments: 4

source=18774609_880001-6105-US00_Declaration_Assignment#page1.tif source=18774609_880001-6105-US00_Declaration_Assignment#page2.tif source=18774609_880001-6105-US00_Declaration_Assignment#page3.tif source=18774609_880001-6105-US00_Declaration_Assignment#page4.tif

Attorney Docket No.: Sony Ref. No.; SP358114US00

DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76) AND ASSIGNMENT FOR SINGLE ASSIGNEE

| Title of Invention | TRANSMISSION UNIT, RECEPTION UNIT, AND COMMUNICATION SYSTEM |
|--|---|
| As the below | named inventor, I hereby declare that: |
| This declarati | The effect analysis of |
| | United States application or PCT international application number PCT/JP2015/002347 filed on 2015/05/08 |
| The above-id | entified application was made or authorized to be made by me. |
| I believe that WHEREAS, | I am the original inventor or an original joint inventor of a claimed invention in the application. SONY CORPORATION , with offices at |
| acquiring all | NAN, MINATO-KU, TOKYO, 108-0075, JAPAN (hereinafter referred to as ASSIGNEE), is desirous of interest in, to and under said invention, said application disclosing the invention and in, to and under any Letters Patent or similar on which may be granted therefor in the United States and in any and all foreign countries; |
| NOW THEREFORE, in consideration of the sum of One Dollar (\$1.00), and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged. I by these presents do hereby assign, sell and transfer unto said ASSIGNEE, its successors, assigns, and legal representatives, the entire right, title and interest in said invention, said application, including any divisions and continuations thereof, and in and to any and all Letters Patent of the United States, and countries foreign thereto, which may be granted for said invention, and in and to any and all priority rights and/or convention rights under the International Convention for the Protection of Industrial Property, Inter-American Convention Relating to Patents, Designs and Industrial Models, and any other international agreements to which the United States of America adheres, and to any other benefits accruing or to accrue to me with respect to the filing of applications for patents or securing of patents in the United States and countries foreign thereto, and I hereby authorize and request the Commissioner of Patents to issue said United States Letters Patent to said ASSIGNEE, as the assignee of the whole right, title and interest thereto; | |
| designee, as remuneration, | agree to execute all necessary or desirable and lawful future documents, including assignments in favor of ASSIGNEE or its ASSIGNEE or its successors, assigns and legal representatives may from time-to-time present to me and without further in order to perfect title in said invention, modifications, and improvements in said invention, applications and Letters Patent of ites and countries foreign thereto; |
| application fo | agree to properly execute and deliver and without further remuneration, such necessary or desirable and lawful papers for reforeign patents, for filing subdivisions of said application for patent, and or, for obtaining any reissue or reissues of any Letters may be granted for my aforesaid invention, as said ASSIGNEE thereof shall hereafter require and prepare at its own expense; |
| application, s | agree that ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said aid invention and said Letters Patent and legal equivalents in foreign countries as may be known and accessible to me and will e same in any interference or litigation related thereto; |
| And I hereby this assignme | covenant that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with and sale. |
| | towledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of five (5) years, or both. |
| LEGAL NAM | IE OF INVENTOR |
| Inventor: | HIROO TAKAHASHI Date: Manch 14, 2016 |
| Signature: | Hiroo Takahashi |

Attorney Docket No.: Sony Ref. No.: SP358114US00

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| As the below | named inventor, I hereby declare that: |
| This declarati | The attached application, or |
| | United States application or PCT international application number PCT/JP2015/002347 filed on 2015/05/08 |
| The above-id | entified application was made or authorized to be made by me. |
| I believe that WHEREAS, | I am the original inventor or an original joint inventor of a claimed invention in the application. SONY CORPORATION , with offices at |
| 1-7-1 KC | NAN, MINATO-KU, TOKYO, 108-0075, JAPAN (hereinafter referred to as ASSIGNEE), is desirous of |
| | nterest in, to and under said invention, said application disclosing the invention and in, to and under any Letters Patent or similar on which may be granted therefor in the United States and in any and all foreign countries; |
| NOW THEREFORE, in consideration of the sum of One Dollar (\$1.00), and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, I by these presents do hereby assign, sell and transfer unto said ASSIGNEE, its successors, assigns, and legal representatives, the entire right, title and interest in said invention, said application, including any divisions and continuations thereof, and in and to any and all Letters Patent of the United States, and countries foreign thereto, which may be granted for said invention, and in and to any and all priority rights and/or convention rights under the International Convention for the Protection of Industrial Property, Inter-American Convention Relating to Patents, Designs and Industrial Models, and any other international agreements to which the United States of America adheres, and to any other benefits accruing or to accrue to me with respect to the filing of applications for patents or securing of patents in the United States and countries foreign thereto, and I hereby authorize and request the Commissioner of Patents to issue said United States Letters Patent to said ASSIGNEE, as the assignee of the whole right, title and interest thereto; | |
| designee, as remuneration. | agree to execute all necessary or desirable and lawful future documents, including assignments in favor of ASSIGNEE or its ASSIGNEE or its successors, assigns and legal representatives may from time-to-time present to me and without further in order to perfect title in said invention, modifications, and improvements in said invention, applications and Letters Patent of ites and countries foreign thereto; |
| application fo | agree to properly execute and deliver and without further remuneration, such necessary or desirable and lawful papers for r foreign patents, for filing subdivisions of said application for patent, and or, for obtaining any reissue or reissues of any Letters may be granted for my aforesaid invention, as said ASSIGNEE thereof shall hereafter require and prepare at its own expense; |
| application, s | agree that ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said and invention and said Letters Patent and legal equivalents in foreign countries as may be known and accessible to me and will be same in any interference or litigation related thereto; |
| And I hereby this assignme | covenant that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with and sale. |
| | owledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of five (5) years, or both. |
| LEGAL NAME OF INVENTOR | |
| Inventor: | HIDEYUKI MATSUMOTO Date: March 9, 20/6 |
| Signature: | Hideyuki Matsumote |

DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76) AND ASSIGNMENT FOR SINGLE ASSIGNEE

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| As the below | named inventor, I hereby declare that: |
| This declarati | The attrobad confication or |
| | United States application or PCT international application number PCT/JP2015/002347 filed on 2015/05/08 |
| The above-id | entified application was made or authorized to be made by me. |
| WHEREAS, | I am the original inventor or an original joint inventor of a claimed invention in the application. SONY CORPORATION , with offices at |
| acquiring all | NAN, MINATO-KU, TOKYO, 108-0075, JAPAN (hereinafter referred to as ASSIGNEE), is desirous of interest in, to and under said invention, said application disclosing the invention and in, to and under any Letters Patent or similar on which may be granted therefor in the United States and in any and all foreign countries; |
| NOW THEREFORE, in consideration of the sum of One Dollar (\$1.00), and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, I by these presents do hereby assign, sell and transfer unto said ASSIGNEE, its successors, assigns, and legal representatives, the entire right, title and interest in said invention, said application, including any divisions and continuations thereof, and in and to any and all Letters Patent of the United States, and countries foreign thereto, which may be granted for said invention, and in and to any and all priority rights and/or convention rights under the International Convention for the Protection of Industrial Property, Inter-American Convention Relating to Patents, Designs and Industrial Models, and any other international agreements to which the United States of America adheres, and to any other benefits accruing or to accrue to me with respect to the filling of applications for patents or securing of patents in the United States and countries foreign thereto, and I hereby authorize and request the Commissioner of Patents to issue said United States Letters Patent to said ASSIGNEE, as the assignee of the whole right, title and interest thereto; | |
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| application fo | r agree to properly execute and deliver and without further remuneration, such necessary or desirable and lawful papers for r foreign patents, for filing subdivisions of said application for patent, and or, for obtaining any reissue or reissues of any Letters may be granted for my aforesaid invention, as said ASSIGNEE thereof shall hereafter require and prepare at its own expense; |
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| And I hereby this assignme | covenant that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with and sale. |
| | owledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of five (5) years, or both. |
| LEGAL NAM | 1E OF INVENTOR |
| Inventor: | TATSUYA SUGIOKA Date: March 14 2016 |
| Signature: | Tatsuya Sugioka |

Attorney Docket No.: Sony Ref. No.: SP358114US00

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| As the below | named inventor, I hereby declare that: |
| This declarati | The attached application, or |
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| The above-ide | ntified application was made or authorized to be made by me. |
| | am the original inventor or an original joint inventor of a claimed invention in the application. SONY CORPORATION , with offices at |
| acquiring all i | NAN, MINATO-KU, TOKYO, 108-0075, JAPAN (hereinafter referred to as ASSIGNEE), is desirous of interest in, to and under said invention, said application disclosing the invention and in, to and under any Letters Patent or similar in which may be granted therefor in the United States and in any and all foreign countries; |
| of which are legal represent in and to any any and all proposition Radheres, and the United States | FORE, in consideration of the sum of One Dollar (\$1.00), and other good and valuable consideration, the receipt and sufficiency hereby acknowledged, I by these presents do hereby assign, sell and transfer unto said ASSIGNEE, its successors, assigns, and tatives, the entire right, title and interest in said invention, said application, including any divisions and continuations thereof, and and all Letters Patent of the United States, and countries foreign thereto, which may be granted for said invention, and in and to ority rights and/or convention rights under the International Convention for the Protection of Industrial Property, Inter-American elating to Patents, Designs and Industrial Models, and any other international agreements to which the United States of America or any other benefits accruing or to accrue to me with respect to the filing of applications for patents or securing of patents in the and countries foreign thereto, and I hereby authorize and request the Commissioner of Patents to issue said United States Letters ASSIGNEE, as the assignee of the whole right, title and interest thereto; |
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| application for | agree to properly execute and deliver and without further remuneration, such necessary or desirable and lawful papers for foreign patents, for filing subdivisions of said application for patent, and or, for obtaining any reissue or reissues of any Letters may be granted for my aforesaid invention, as said ASSIGNEE thereof shall hereafter require and prepare at its own expense; |
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| And I hereby of this assignmen | tovenant that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with and sale. |
| I hereby acknown of more than | owledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of five (5) years, or both. |
| LEGAL NAM | E OF INVENTOR |
| Inventor: | HIROAKI HAYASHI Date: March 14, 20/6 |
| Signature: | Hiroaki Hayashi |

RECORDED: 03/23/2016